

Remarks

In the Advisory Action dated April 28, 2011, the rejection of claims 1-4 and 6-13 under 35 U.S.C. §103 was maintained.

By this response, claims 8-9 have been amended to clarify the claim language. No new matter has been added.

Cited Art

The following references were cited and applied in the Final Office Action of December 15, 2010: U.S. Patent 7,079,508 to Ayyagari et al. (hereinafter, "Ayyagari"); and U.S. Patent Application Publication No. 2004/0032868 to Oda et al. (hereinafter, "Oda").

Rejection of Claims 1-4 and 6-13 under 35 U.S.C. §103

Claims 1-4 and 6-13 stand rejected under 35 U.S.C. §103 as unpatentable over Ayyagari in view of Oda. These rejections are respectfully traversed.

Claim 1 recites, in part:

*receiving in the wired network at least one information frame from the at least one mobile terminal user in said wireless LAN;
determining a QoS level/service level for the received at least one information frame;
associating with the received at least one information frame an identifier that identifies at least one path through the wired network having a transmission capability sufficient to provide the determined QoS level/service level, wherein the identifier includes a Virtual Local Area Network (VLAN) number; and
routing the at least one information frame in the wired network along at least one path identified by the associated identifier." (emphasis added)*

The Advisory Action stated on page 2, lines 10-11 that "[t]he claim only allows for any information frame to be routed through the wired network, not the one at least information frame". Applicants interpret that "the claim" mentioned in the Advisory Action refers to Applicants' claim 1, and if so, there appears to be some misunderstanding of claim 1 in the Advisory Action.

Specifically, claim 1 recites, in part: "*receiving in the wired network at least one information frame from the at least one mobile terminal user in said wireless LAN; ...*

and routing the at least one information frame in the wired network along at least the at least one path identified by the associated identifier."

Thus, contrary to the statement in the Advisory Action, claim 1 indeed specifies that it is the at least one information frame received in the wireless LAN from the mobile terminal user that is routed in the wired network.

The Advisory Action stated on page 3 that "*Ayyagari only must receive a frame and determine a QoS from the frame and does not have to further propagate the frame itself, as dictated in the claim portions recited by Ayyagari. The arguments submitted interpreting the three different packets are in contrast to the interpretation of the claims*".

In the Amendment of 4/15/11, Applicants interpreted the various packets in Ayyagari in order to assess whether any of these packets, as taught by Ayyagari, can reasonably be considered analogous or equivalent to the "at least one information frame" of Applicants' claims, e.g., as being consistent with the features associated with the information frame in claims 1 and 8.

Specifically, the at least one information frame in Applicants' claim 1 originates from the mobile user to the wireless LAN, and is received in the wired network. Since neither the "access request packet" nor the "QoS request packet" in Ayyagari is received by the wireless LAN from a mobile user and received in the wired network, neither can be deemed equivalent to the "at least one information frame" of claim 1.

Although the "transmission packet" in Ayyagari does originate from a mobile user and is received in the wired network (i.e., similar in this respect to the at least one information frame in Applicants' claim 1), it is routed based solely on a priority tag included in the packet (e.g., Ayyagari, FIG. 4 and col. 10, lines 52-56), and not based on an identifier for identifying a path having capability sufficient to provide a determined QoS level or service level, as provided in Applicants' claimed invention.

The Examiner (e.g., Advisory Action, page 5) acknowledged that Ayyagari lacks any teaching relating to the "associating" and "routing" steps of Applicants' claim 1, and thus, relied on Oda for allegedly teaching these features relating to an identifier including a VLAN number that identifies at least one path through the wired network, and routing the information frame along the identified path.

Stating that these references belong to similar fields (path selection), the Advisory Action concluded that it would have been obvious for one skilled in the art to modify Ayyagari's method to include the use of VLAN IDs for optimum path selection (see Advisory Action, page 5).

Applicants submit, however, that such reasoning is merely conclusory, and fails to clearly articulate why one skilled in the art would have found it obvious to modify Ayyagari's method of pre-approved Quality of Service assurance using priority tag in a frame by Oda's a totally different approach of mapping a frame to a predetermined VLAN.

Although page 5 of the Advisory Action cited the benefit of dynamically assigning an optimum path as justification for this modified approach, Applicants submit that the modified method also has a disadvantage of increased complexity, including the need to perform path monitoring, providing notification when a VLAN is detected to have a lowered response, and then re-mapping the frame from a previously assigned VLAN to a different VLAN, as taught by Oda (see para. [0102]-[0104]).

Given the drastic departure from Ayyagari's method of a pre-approved path with QoS assurance for a priority-tagged frame, and the additional steps of ongoing path monitoring, notification and re-mapping of frames, Applicants contend that the resulting operational complexity is actually a strong dis-incentive against modifying Ayyagari by Oda's teaching. The selection of specific features from Ayyagari and Oda to arrive in a combination similar to Applicants' invention may be the result of hindsight based on Applicants' teaching.

In view of the above, Applicants respectfully submit that claims 1 and 8 are not obvious over Ayyagari and Oda. Since claims 2-4, 6-7 and 9-13 depend from their respective base claim 1 or claim 8, these claims are also not obvious over Ayyagari and Oda for the same reasons set forth above.

Dependent claim 2, which provides that the QoS level or service level is determined from the identity of the user, is also patentable over Ayyagari and Oda for another reason. In rejecting claim 2, page 6 of the Final Office Action cited Ayyagari's col. 9, lines 36-39 as allegedly teaching the features in claim 2. Applicants respectfully disagree.

Ayyagari teaches, in col. 9, lines 36-39, that the *"message requesting QoS includes data structure for recording the originating node, the destination node and intermediate nodes in the path as the intermediate nodes determine the path."* Such a data structure allows the message to be sent back to the previous node if the request for resources is vetoed, or if there is no veto by

any nodes, the message returns to the originating node as assurance that the resources are reserved along the path (Ayyagari: col. 9, lines 41-48). Ayyagari further teaches that the QoS associated with a packet is generally associated with the particular task requiring transmission of the packet (col. 10, lines 47-49).

In other words, the originating node recorded in the data structure of Ayyagari is provided for returning a message to the node, but not for determining the QoS. Instead, Ayyagari teaches that the QoS is associated with a particular task itself. Thus, contrary to the Final Office Action, the cited portion of Ayyagari does not teach the features in Applicants' claim 2. As such, claim 2 is not obvious over Ayyagari and Oda for this additional reason.

Conclusion

In view of the foregoing, it is submitted that all the claims pending in this patent application are in condition for allowance. Entry of this amendment, reconsideration of this application, and allowance of all the claims are respectfully solicited.

Respectfully submitted,

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